



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

P9700-50
Job Sheet 168565



Part No: P9700-50

Job Qty: 1 ea

Part Name: Plasma® Long Line 9,700 lbs Safe Work Load (4,500 kg)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/17/17

Job Tracking No:

Due Date: 1/3/18

Created By: Chantal Lavoie

Type: Stock

Description:

Customer: Washington Army National Guard (CWASH05)

Building 3106, 2nd Division Drive Joint Base Lewis-McChord, WA, 98433 USA

Note: IPP Rev A 17.11.13 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Purchasing	1 pcs		1/3/18	0.00	0.00	Purchasing		AT 18/02/13
120	Packaging	1 pcs		1/3/18	0.00	0.00	Packaging2		AT 18/02/13
130	QC	1 pcs		1/3/18	0.00	0.00	QC6		38
140	Packaging	1 pcs		1/3/18	0.00	0.00	Packaging3		38
150	QC21-SA	1 Ea		1/3/18	0.00	0.00	QC21		71 JUL 0 6 2017

Part Op 110 - -Issue P/O to Tulmar; P/O 038417 -Manufacture as per DWG P9700-50 -Certificate of Conformity is required

F9108 week NOV 20 2017

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
110-Purchasing	P9700-50P	1	0	0	0

Part Specifications

Specifications could not be found.

Plex 11/17/17 8:09 AM dart.lavoie.chantal

135

small Fab-6

MLL

DAS
10
9-89

L 1632T22

9017TA213

600.1327

Alum. Tag 2x
~~split ring~~

split ring 2x

bag

1x

5059251

5073058

5078742

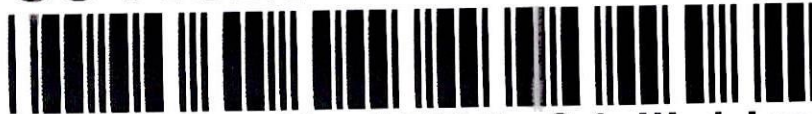
DAS
10
9-89

145 AC → OM-SLP Long line Rev8.

DART
AEROSPACE
S041825

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Plasma® Long Line 9,700 lbs Safe Work Load (4,500 kg)

PART NO: P9700 – 50

Original Serial #: S041825

Revision:

Operation: Purchasing

Change No:

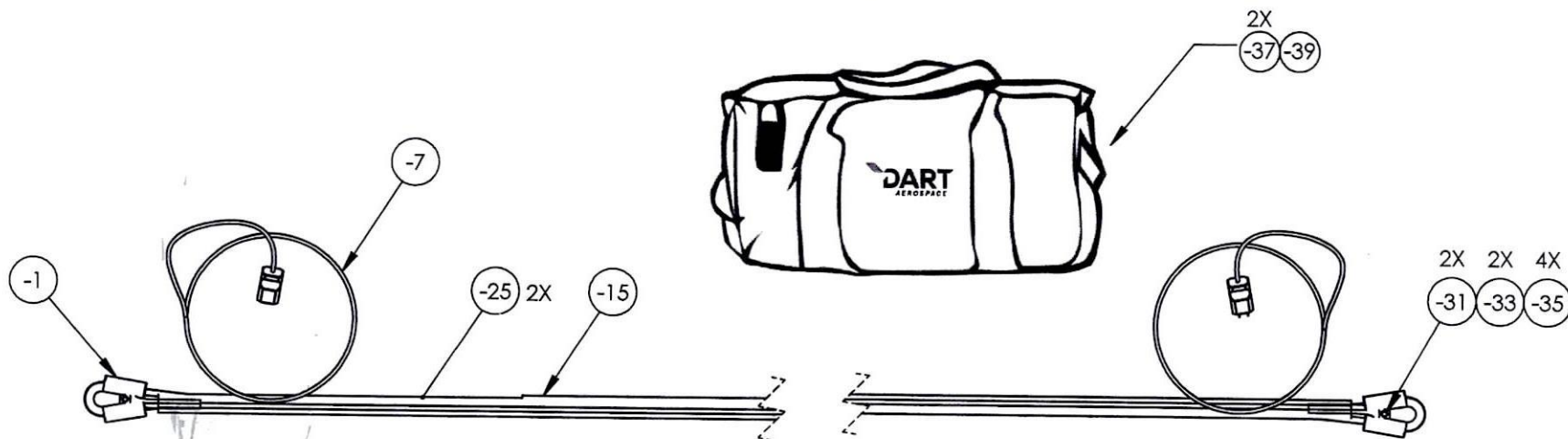
Mfg Date: 02/13/18

Job No: 168565

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REVISIONS			
REV	ECR	DESCRIPTION	DATE
1		RELEASED FOR PRODUCTION.	5/5/2017

TEO ATTACHED



ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			X		-1	1	LINE/THIMBLE ASSEMBLY			2
			1	B/O	-3		ROPE		SEE TABLE 1, MODIFIED	2
			2	B/O	-5		THIMBLE	STEEL	SEE TABLE 1, MODIFIED	3
			2	B/O	-6		EPOXY	EPOXY	(SMOOTH CAST 45D)	2
		X			-7	1	WIRE ASSEMBLY			4
		1		B/O	-9		WIRE		14/3 SJTOW, MODIFIED	4
		1		B/O	-11		3-PRONG MALE SPADE PLUG	EL-PLUG-M	(PASS & SEYMOUR # PS5965Y)	4
		1		B/O	-13		3-PRONG FEMALE SPADE PLUG	EL-PLUG-F	(PASS & SEYMOUR # PS5969Y)	4
	X				-15	1	JACKET		SEE TABLE 2	5
	1			B/O	-17		WEBBING		SEE TABLE 2	5
	1			B/O	-19		1" VELCRO	NYLON	1" HOOK FASTENING TAPE (J. ENNIS FABRICS # VELSE9004)	5
	1			B/O	-21		1" VELCRO	NYLON	1" HOOK FASTENING TAPE (J. ENNIS FABRICS # VELSE9005)	5
1	1			B/O	-23		2" VELCRO	NYLON	2" HOOK FASTENING TAPE (J. ENNIS FABRICS # VELSE9006)	5,6
X				B/O	-25	2	END RETURN		SEE TABLE 3	6
1				B/O	-27		WEBBING		TOP GUN MATERIAL, MEDIUM BLUE	6
1				B/O	-29		2" VELCRO	NYLON	2" LOOP FASTENING TAPE (J. ENNIS FABRICS # VELSE9007)	6
				B/O	-31	2	BOLT	STEEL	AN3-10A	1
				B/O	-33	2	NUT	STEEL	MS21044-N3	1
				B/O	-35	4	WASHER	STEEL	AN960-10	1
					-37	2	TAG	PAPER		7
				B/O	-39	1	BAG		DART AEROSPACE BAG (600.1327)	1
ASSY -25	ASSY -15	ASSY -7	ASSY -1							

NOTE:
1. CONSULT LONG LINE ASSEMBLY MANUAL FOR PRODUCT ASSEMBLY.

DART
AEROSPACE

LONG LINE

TITLE	P####-##			REV 1
DWG NO.				
MAT'L				
HEAT TREAT				
FINISH				
SPEC				
DRAWN BY:	SM 05/05/2017			
CHECKED:	DD 05/08/2017			
OPPS APPR:	AA 05/10/2017			
QA APPR:	JL 05/10/2017			
APPROVED:	JAG 05/17/2017			
SCALE	1:12	DATE	5/5/2017	SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ± 5°
.X ± .1 SURFACES = 125°
1. BREAK ALL SHARP EDGES
.015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY
AFTER PLATING
3. INTERPRET DIM AND TOL PER
ASME Y14.5M-2009

USED ON MODEL

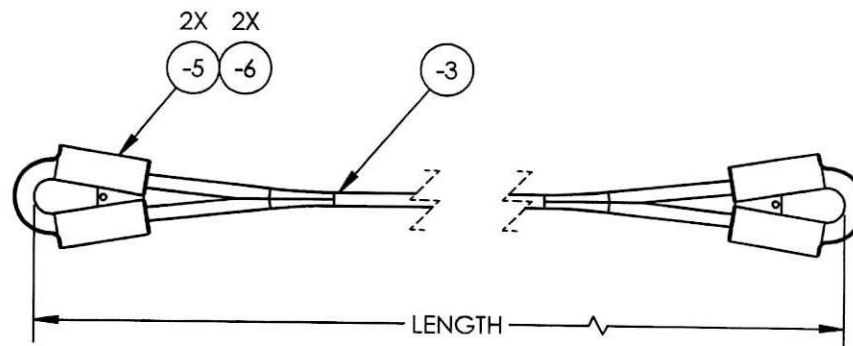
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REVISIONS			
REV	ECR	DESCRIPTION	DATE
			INITIAL
			APPROVED

TEO ATTACHED

TABLE 1

P####	-## (LENGTH FT.)	-3 (ROPE)	-5 (THIMBLE)
2500	50	3/8" PLASMA® 12 STRAND	G715PC
	100		
	150		
	200		
	CUSTOM		
3000	50	7/16" PLASMA® 12 STRAND	
	100		
	150		
	200		
	CUSTOM		
4400	50	1/2" PLASMA® 12 STRAND	G719PC
	100		
	150		
	200		
	CUSTOM		
5400	50	9/16" PLASMA® 12 STRAND	
	100		
	150		
	200		
	CUSTOM		
7300	50	5/8" PLASMA® 12 STRAND	G725PC
	100		
	150		
	200		
	CUSTOM		
9700	50	3/4" PLASMA® 12 STRAND	
	100		
	150		
	200		
	CUSTOM		
13200	50	7/8" PLASMA® 12 STRAND	G735PC
	100		
	150		
	200		
	CUSTOM		
15700	50	1" PLASMA® 12 STRAND	G745PC
	100		
	150		
	200		
	CUSTOM		



NOTE:

1. CUT AND SPLICE ROPE WITH THIMBLES IN ACCORDANCE WITH THE LONG LINE ASSEMBLY MANUAL AND CUT LENGTH CALCULATOR.

DART AEROSPACE	
TITLE LONG LINE	
DWG NO. P####-##-1	REV 1
MAT'L _____ HEAT _____ TREAT _____ FINISH _____ SPEC _____	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ± 1° .X ± .1 SURFACES = 125/✓	
DRAWN BY: SM 05/05/2017	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DD 05/08/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 05/10/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 05/10/2017	USED ON MODEL
APPROVED: JAG 05/17/2017	
SCALE 1:6	DATE 5/5/2017
SHEET 2 OF 7	

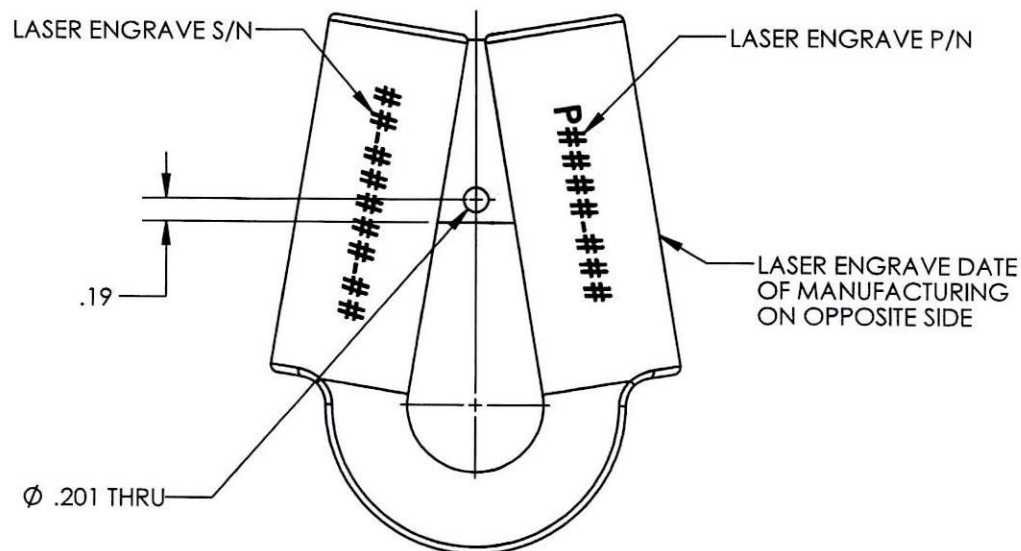
(-1)

LINE/THIMBLE ASSEMBLY

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NOTE:

1. USE THIMBLE REFERENCED TO IN TABLE 1.

DART AEROSPACE											
TITLE LONG LINE											
DWG NO. P####-##-5	REV 1										
<table border="1"> <tr> <td>MAT'L STEEL</td> <td>UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>HEAT TREAT</td> <td>DIMENSIONS ARE IN INCHES</td> </tr> <tr> <td>FINISH GRAY POWDERCOAT</td> <td>.XXX ± .010 FRACTIONS ± 1/8</td> </tr> <tr> <td>SPEC</td> <td>.XX ± .03 ANGLES ± 1°</td> </tr> <tr> <td></td> <td>.X ± .1 SURFACES = 125/</td> </tr> </table>		MAT'L STEEL	UNLESS OTHERWISE SPECIFIED	HEAT TREAT	DIMENSIONS ARE IN INCHES	FINISH GRAY POWDERCOAT	.XXX ± .010 FRACTIONS ± 1/8	SPEC	.XX ± .03 ANGLES ± 1°		.X ± .1 SURFACES = 125/
MAT'L STEEL	UNLESS OTHERWISE SPECIFIED										
HEAT TREAT	DIMENSIONS ARE IN INCHES										
FINISH GRAY POWDERCOAT	.XXX ± .010 FRACTIONS ± 1/8										
SPEC	.XX ± .03 ANGLES ± 1°										
	.X ± .1 SURFACES = 125/										
<table border="1"> <tr> <td>DRAWN BY:</td> <td>SM 05/05/2017</td> </tr> <tr> <td>CHECKED:</td> <td>DD 05/08/2017</td> </tr> <tr> <td>OPPS APPR:</td> <td>AA 05/10/2017</td> </tr> <tr> <td>QA APPR:</td> <td>JL 05/10/2017</td> </tr> <tr> <td>APPROVED:</td> <td>JAG 05/17/2017</td> </tr> </table>		DRAWN BY:	SM 05/05/2017	CHECKED:	DD 05/08/2017	OPPS APPR:	AA 05/10/2017	QA APPR:	JL 05/10/2017	APPROVED:	JAG 05/17/2017
DRAWN BY:	SM 05/05/2017										
CHECKED:	DD 05/08/2017										
OPPS APPR:	AA 05/10/2017										
QA APPR:	JL 05/10/2017										
APPROVED:	JAG 05/17/2017										
SCALE 2:3	DATE 5/5/2017										
SHEET 3 OF 7											

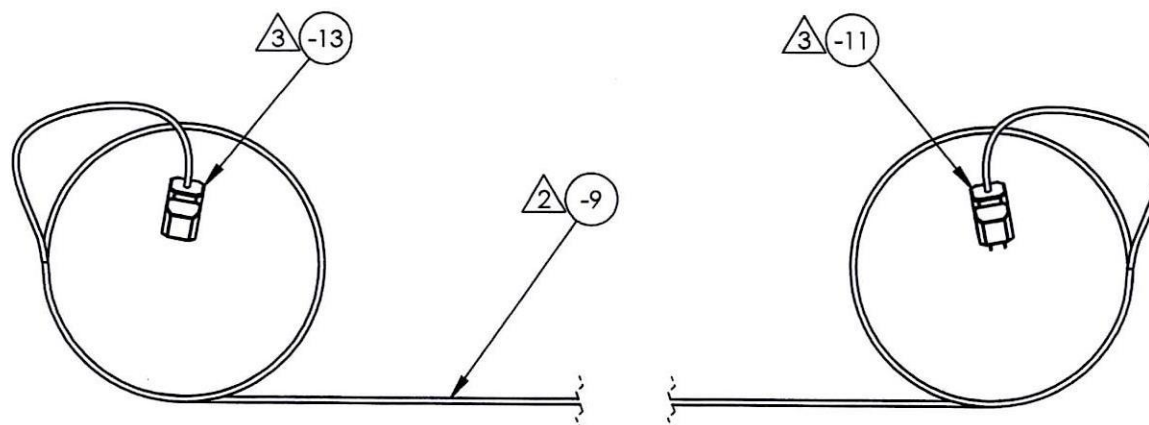
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THIMBLE

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NOTES:

1. WIRING REQUIREMENTS MAY VARY UPON CUSTOMER REQUEST.
2. DETERMINE OVERALL WIRE LENGTH USING LONG LINE ASSEMBLY MANUAL.
3. SPLICE WIRE ENDS IN ACCORDANCE WITH LONG LINE ASSEMBLY MANUAL.

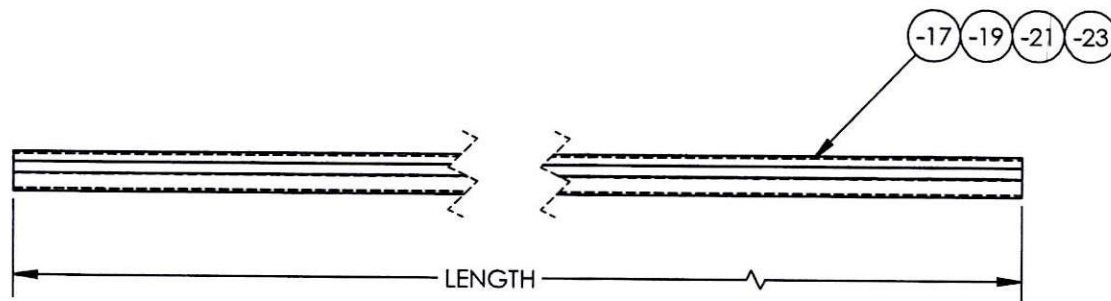
(-7)
WIRE ASSEMBLY

DART AEROSPACE	
TITLE LONG LINE	
DWG NO. P####-##-7	REV 1
MAT'L REAT FINISH SPEC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ± 1° .X ± .1 SURFACES = 125/
DRAWN BY: SM 05/05/2017	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DD 05/08/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 05/10/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 05/10/2017	USED ON MODEL
APPROVED: JAG 05/17/2017	
SCALE 1:8	DATE 5/5/2017 SHEET 4 OF 7

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NOTES:

1. PROVIDE -17, -19, & -21 MATERIALS TO VENDOR.
2. CONSULT LONG LINE ASSEMBLY MANUAL FOR JACKET LENGTH.

TABLE 2

TABLE 2		
LONG LINE	-17 MATERIAL WIDTH	LENGTH
P2500-##	MURDOCK WEBBING CO. INC 4 1/8" SINGLE-WALLED TUBULAR WEB ORANGE	SEE NOTE 2
P3000-##		
P4400-##		
P5400-##		
P7300-##	MURDOCK WEBBING CO. INC 5 1/8" SINGLE-WALLED TUBULAR WEB ORANGE	
P9700-##		
P13200-##		
P15700-##	MURDOCK WEBBING CO. INC 6 1/8" SINGLE-WALLED TUBULAR WEB ORANGE	

(-15)

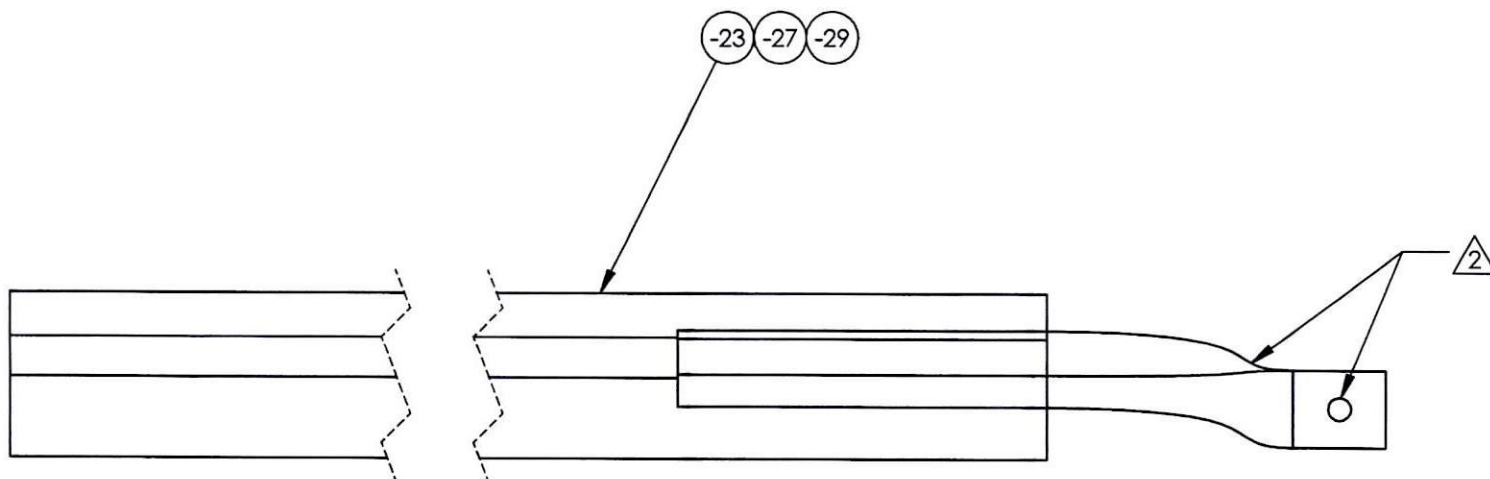
JACKET

DART AEROSPACE																											
TITLE LONG LINE																											
DWG NO. P####-##-15	REV 1																										
<table border="1"> <tr> <td>MAT'L</td> <td>UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>TREAT</td> <td>DIMENSIONS ARE IN INCHES</td> </tr> <tr> <td>FINISH</td> <td>.XXX ± .010 FRACTIONS ± 1/8</td> </tr> <tr> <td>SPEC</td> <td>.XX ± .03 ANGLES ± 1°</td> </tr> <tr> <td></td> <td>.X ± .1 SURFACES = 125/</td> </tr> <tr> <td>DRAWN BY:</td> <td>SM 05/05/2017</td> </tr> <tr> <td>CHECKED:</td> <td>DD 05/08/2017</td> </tr> <tr> <td>OPPS APPR:</td> <td>AA 05/10/2017</td> </tr> <tr> <td>QA APPR:</td> <td>JL 05/10/2017</td> </tr> <tr> <td>APPROVED:</td> <td>JAG 05/17/2017</td> </tr> <tr> <td>SCALE</td> <td>1:4</td> </tr> <tr> <td>DATE</td> <td>5/5/2017</td> </tr> <tr> <td colspan="2">SHEET 5 OF 7</td> </tr> </table>		MAT'L	UNLESS OTHERWISE SPECIFIED	TREAT	DIMENSIONS ARE IN INCHES	FINISH	.XXX ± .010 FRACTIONS ± 1/8	SPEC	.XX ± .03 ANGLES ± 1°		.X ± .1 SURFACES = 125/	DRAWN BY:	SM 05/05/2017	CHECKED:	DD 05/08/2017	OPPS APPR:	AA 05/10/2017	QA APPR:	JL 05/10/2017	APPROVED:	JAG 05/17/2017	SCALE	1:4	DATE	5/5/2017	SHEET 5 OF 7	
MAT'L	UNLESS OTHERWISE SPECIFIED																										
TREAT	DIMENSIONS ARE IN INCHES																										
FINISH	.XXX ± .010 FRACTIONS ± 1/8																										
SPEC	.XX ± .03 ANGLES ± 1°																										
	.X ± .1 SURFACES = 125/																										
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APPROVED:	JAG 05/17/2017																										
SCALE	1:4																										
DATE	5/5/2017																										
SHEET 5 OF 7																											

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REV	ECR	DESCRIPTION	DATE INITIAL APPROVED

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NOTES:

1. PROVIDE MATERIALS -23, -27, & -29 TO VENDOR.
2. WEBBING AND EYELETS NOT PROVIDED

DART AEROSPACE	
TITLE LONG LINE	
DWG NO. P####-##-25	REV 1
MAT'L REACT	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TREAT FINISH	.XXX ± .010 FRACTIONS ± 1/8
SPEC	.XX ± .03 ANGLES ± 1°
	.X ± .1 SURFACES = 125/
DRAWN BY: SM 05/05/2017	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DD 05/08/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 05/10/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 05/10/2017	USED ON MODEL
APPROVED: JAG 05/17/2017	
SCALE 2:3	DATE 5/5/2017 SHEET 6 OF 7

TABLE 3

LONG LINE	END RETURN
P2500-##	ER-3044
P3000-##	ER-3044-1
P4400-##	ER-5473
P5400-##	
P7300-##	
P9700-##	ER-9713
P13200-##	
P15700-##	ER-15002

-25

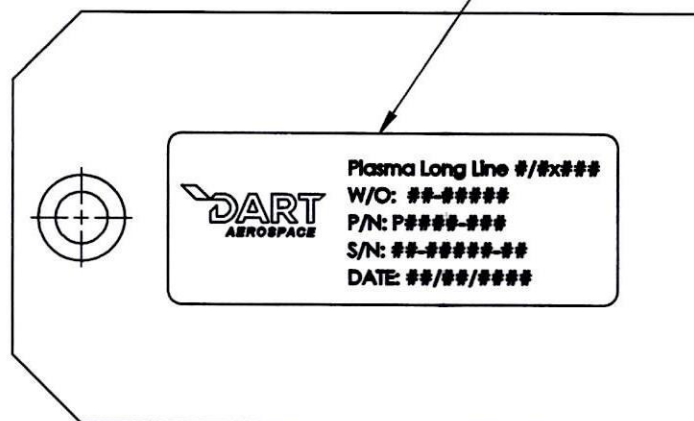
END RETURN

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REVISIONS						
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED	

TEO ATTACHED

PRINT:
 PLASMA LONG LINE (ROPE DIAMETER (IN.))X(LENGTH (FT.))
 W/O: ##-####
 P/N: P####-###
 S/N: ##-#####-##
 DATE: ##/##/####



NOTE:
 1. ATTACH FIRST TAG TO ZIPPER ON -39, PLACE SECOND TAG IN FRONT POCKET ON -39.

-37

TAG

DART AEROSPACE	
TITLE LONG LINE	
DWG NO. P####-##-37	REV 1
MAT'L _____ HEAT _____ TREAT _____ FINISH _____ SPEC _____	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ±1° .X ± .1 SURFACES = 125/	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
USED ON MODEL	
DRAWN BY: SM 05/05/2017 CHECKED: DD 05/08/2017 OPPTS APPR: AA 05/10/2017 QA APPR: JL 05/10/2017 APPROVED: JAG 05/17/2017	SCALE 3:4 DATE 5/5/2017 SHEET 7 OF 7

**ENGINEERING ORDER # TEO17-741**

SCALE: NTS

SHEET 1 OF 1

DRAWING NO. P###-##

REV: 1

EFF.: NEXT ORDER

CHANGE CATEGORY

TITLE: LONG LINE

☒ MAJOR ☐ MINOR

DATE 17.11.08

APPROVED: WM 11/14/2017

MFG. APPR.: DD 11/14/2017

CHECKED: WM 11/14/2017 DRAWN: VM 11/09/2017

TRANSACTION CODE (TC):

A-ADD C-CREATE
R-REVISE D-DELETE

REASON: UPDATE TO DRAWING CALLOUTS FOR NEW SUPPLIER OF LONG LINES

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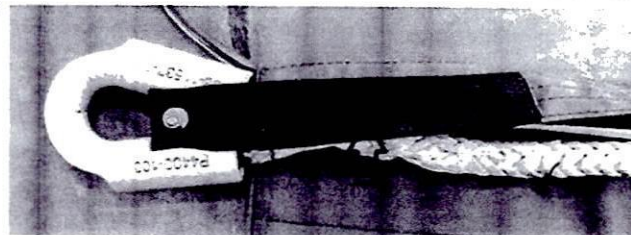
1) JACKET MUST BE MADE WITH REFERENCE TO DRAWING P###-## REV 1, LONG LINE ASSEMBLY MANUAL AND SAMPLE PROVIDED TO TULMAR WITH P/N P5400-50 S/N AC09006

2) ACCEPTABLE TO USE EL-PLUG-M (PASS & SEYMOUR #PS5965Y) OR McMaster PLUG #7216K5
ACCEPTABLE TO USE EL-PLUG-F (PASS & SEYMOUR #PS5969Y) OR McMaster PLUG #7216K6

3) ACCEPTABLE TO USE SJEOOW OR SJTOW ELECTRICAL WIRE

4) LASER ENGRAVE S/N AND P/N ON THIMBLE IS OPTIONAL

5) IDENTIFICATION WITH SEWN ON LABEL AT LOCATION SHOWN TO INCLUDE: "Dart Aerospace Ltd. P/N: P###-##, S/N: XX-XXXX-XX, MANUFACTURE DATE: MM/DD/YYYY",
WHERE THE P###-## WILL BE DEPENDENT ON THE MODEL ORDERED PER DRAWING



6) SELECTED COVER TO EXTEND THROUGH THIMBLE ENDS TO PREVENT ABRASION OF ROPE BY THIMBLE. THEY MUST BE THE SAME ON BOTH ENDS OF THE LONG LINE
ACCEPTABLE TO USE ONE OF: SLEEVE-DB-TEXSXX
WEARPADXX

7) INSPECT CONDITION OF ROPE AT THE END OF THE ROPE RETURN AND THIMBLES. FRAYING OR DAMAGE TO ROPE IS NOT ACCEPTABLE. INSPECT JACKETS AND COVER. SEWING TO BE CONTINUOUS AND WITH NO LOOSE THREADS. NO DAMAGE TO THE JACKETS IS ACCEPTABLE. ELECTRICAL CABLE MUST BE FREE OF DAMAGE OR NICKS TO THE INSULATION WHERE VISIBLE (FULL INSPECTION OF WIRE IS NOT REQUIRED). ELECTRICAL CONNECTORS MUST BE SECURELY INSTALLED. PERFORM CONTINUITY CHECK TO ENSURE THERE IS NO SHORT AND THAT CABLES ARE CONNECTED PROPERLY.

8) ACCEPTABLE TO USE Plasma® 12 STRAND ROPE OR Dyneema® SupreemX-12™ ROPE

9) PART MUST BE RECEIVED WITH CERTIFICATE OF CONFORMITY FROM TULMAR

10) IT IS ACCEPTABLE TO BUILD THE LONG LINE P###-## UTILIZING COMMON MANUFACTURING PRACTICES FROM Atlantic Braids AND Tulmar.
DART ASSEMBLY MANUAL IS FOR REFERENCE ONLY

11) ELECTRICAL WIRE LENGTH TO EXTEND 6' PAST THE BASE OF THE THIMBLE ON BOTH ENDS

12) JACKET LENGTH TO COVER THE ROPE UP TO AND INCLUDING THE END RETURN TAPER ON BOTH ENDS. JACKET LENGTH WILL BE DEPENDENT ON MODEL LENGTH

DOCUMENTS EFFECTED: ☐ PATTERN ☐ INSTALL INSTRUCTIONS ☒ BOM



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038417

Supplier: TUL001-VC
Tulmar Safety Systems
1123 Cameron St
Hawkesbury
ON
K6A 2B8 Canada
Phone: 613 632 1282
Fax: 613 632 2030

PO No: PO038417
PO Date: 11/20/17
Due Date: 2/5/18
Purchase Order Revision:
Revision Date: 1/24/18
Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

REVISED
\$

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Part	Supplier Part No	Item No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	P13200-50P			Plasma® Long Line As per DWG P13200-50 Rev. 1	Firmed	2/5/18	2 Ea	0 Ea	2 Ea	\$2,075.00/Ea	\$4,150.00
Line Item Note B168557											
2	P3000-100P			Plasma® Long Line 3,000 lbs Safe Work Load (1,350 kg) As per dwg P3000-100 Rev. 1	Firmed	2/5/18	4 Ea	0 Ea	4 Ea	\$1,495.00/Ea	\$5,980.00
Line Item Note B168559											
3	P3000-150P			Plasma® Long Line -Manufacture as per DWG P3000-150 Rev 1	Firmed	2/5/18	2 Ea	0 Ea	2 Ea	\$2,035.00/Ea	\$4,070.00
Line Item Note B168558											
4	P3000-50P			Plasma® Long Line 3,000 lbs Safe Work Load (1,350 kg) As per Dwg P3000-50 Rev. 1	Firmed	2/5/18	8 pcs	0 pcs	8 pcs	\$960.00/pcs	\$7,680.00
Line Item Note B168560											
5	P4400-100P			Plasma® Long Line 4,400 lbs Safe Work Load (2,000 kg) As Per Dwg P4400-100 Rev. 1	Firmed	2/5/18	3 Ea	0 Ea	3 Ea	\$1,705.00/Ea	\$5,115.00
Line Item Note B168561											
6	P4400-150P			Plasma® Long Line 4,400 lbs Safe Work Load (2,000 kg) As per Dwg P4400-150 Rev. 1	Firmed	2/5/18	1 pcs	0 pcs	1 pcs	\$2,340.00/pcs	\$2,340.00
Line Item Note B168562											

PURCHASE ORDER

Items											
Line Item	Part	Supplier Part No	Item No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
7	P4400-50P			Plasma® Long Line 4,400 lbs Safe Work Load (2,000 kg) As Per Dwg P4400-50 Rev. 1	Firmed	2/5/18	4 pcs	0 pcs	4 pcs	\$1,070.00/pcs	\$4,280.00
Line Item Note B168563											
8	P5400-50P			Plasma® Long Line 5,400 lbs Safe Work Load (2,500 kg) AS Per Dwg P5400-50 Rev. 1	Firmed	2/5/18	1 pcs	0 pcs	1 pcs	\$1,185.00/pcs	\$1,185.00
Line Item Note B168564											
9	P9700-50P			Plasma® Long Line 9,700 lbs Safe Work Load (4,500 kg) As Per Dwg P9700-50 Rev. 1	Firmed	2/5/18	1 Ea	0 Ea	1 Ea	\$1,860.00/Ea	\$1,860.00
Line Item Note B168565											
10	P4400-25P			Plasma® Long Line 4,400 lb Safe Work Load (2,000 Kg) sales quote: 19062	Firmed	3/5/18	1 Ea	0 Ea	1 Ea	\$701.80/Ea	\$701.80
Line Item Note B170066											
11	P4400-50P			Plasma® Long Line 4,400 lbs Safe Work Load (2,000 kg) As Per Dwg P4400-50 Rev. 1	Firmed	2/5/18	2 pcs	0 pcs	2 pcs	\$1,070.00/pcs	\$2,140.00
Line Item Note B169944											
12	P3000-50P			Plasma® Long Line 3,000 lbs Safe Work Load (1,350 kg) As per Dwg P3000-50 Rev. 1	Firmed	2/5/18	2 pcs	0 pcs	2 pcs	\$960.00/pcs	\$1,920.00
Line Item Note B169943											
13	P3000-25P			Plasma® Long Line 3,000 lbs Safe Work Load (1,350 kg) As Per Dwg P3000-25	Firmed	2/5/18	1 pcs	0 pcs	1 pcs	\$0.01/pcs	\$0.01
Line Item Note job # 169697											
										Grand Total: \$41,421.81	

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

A005 RIGHT OF ENTRY
 A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
 A012 CHEMICAL AND PHYSICAL TEST REPORTS
 A016 PERSONNEL QUALIFICATION
 A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
 A026 CERTIFICATION OF MATERIAL CONFORMANCE
 A041 QUALITY MANAGEMENT SYSTEM
 A042 DART NOTIFICATION BY SUPPLIER
 A043 RETENTION OF QUALITY DOCUMENT
 A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
 A049 SUPPLIER AWARENESS

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8
Tel: 613-632-1282
Fax: 613-632-2030
GST R132478223
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No Page

62568 2

Ship Date
2/9/2018

Bill To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

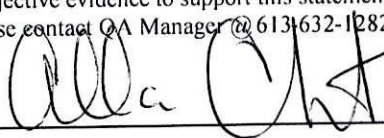
Order number	Sales order date	Account number	Loc	Account manager
35465	11/21/2017	CDART100	H	Francine Bigras
PO number	Ship via	Shipping Terms		
PO038417	Pick-Up			
Item No.	Quantity ordered	UOM	Qty Shipped/Returned	Quantity on back order
Description				

Certificate of Conformance

☐ See Certification Enclosed

I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 223.

Authorized Inspector



Date:

FEB 09 2018

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8
Tel: 613-632-1282
Fax: 613-632-2030
GST R132478223
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No Page

63250 1

Ship Date

4/19/2018

Bill To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

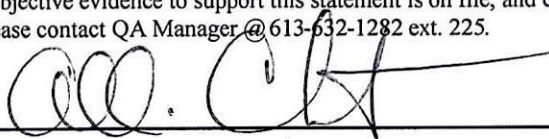
Order number	Sales order date	Account number	Loc	Account manager
35784	3/2/2018	CDART100	H	Francine Bigras
PO number	Ship via	Shipping Terms		
RMA 18-016/ (SO 35465)	Pick-Up			
Item No. Description	Quantity ordered	UOM	Qty Shipped/Returned	Quantity on back order
TULMAR TRUCK				
R&O MISC Misc R&O Item 87349-001: Long Line rework P9700-50	1.00	EA	1.00	
R&O MISC Misc R&O Item 87350-001: Long line rework P13200-50	2.00	EA	2.00	

Certificate of Conformance

☐ See Certification Enclosed

I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 225.

Authorized Inspector



Date:

APR 19 2018

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only ☐

Work Order: <u>168561</u> Part No. <u>P####-##</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS					
				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
				Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
				Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
				Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval April 18, 2018		
Description Work Order Deviation				Disposition					
The G725P has been replaced by the G728P thimble on Qty (1) P9700-50 longline (PO 038417)				- This deviation is acceptable. - The fit, form and function of the longline will be as originally intended per drawing P####-##					
				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval					
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☒ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : _____							